

**REMARKS**

The above-identified patent application has been amended and Applicants respectfully requests the Examiner to reconsider and again examine the claims as amended.

Claims 1-3, 5-11, and 13-14 are now pending in the application, with claims 1, 8, 13 and 14 being in independent form. Claim 1-3, 5-7 and 13-14 are rejected. No claims are yet allowed. Claims 8 -11 are objected to as being dependent on a rejected base claim, but were deemed allowable if rewritten in independent form, including limitations of the base claim and any intervening claims. Claims 4 and 12 have been cancelled by this amendment and no new claims have been added by this amendment.

The Examiner rejected Claims 1 and 12-14 under 35 U.S.C. 102(b) as anticipated by German Patent No. DE4407369, U.S. Patent No. 5,442,359 or U.S. Patent Application No. 2002/00606039.

The Examiner has also rejected Claims 2-7 under 35 U.S.C. 103(a) as being unpatentable over German Patent No. DE4407369, U.S. Patent No. 5,442,359 or U.S. Patent Application No. 2002/00606039.

Applicants note that Claims 8 -11 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims. Applicants have amended Claim 8 to include the limitations of the base claim and intervening claims and Claim 8 should now be allowable.

It is respectfully submitted that Claim 1 is patentable over the cited art, since the cited art neither describes nor suggests " ... processing the signal samples to produce a wideband envelope range estimate for components of target motion comprising precession and spin motion components; measuring the signal samples to produce ambiguous phase values; providing an integer number of cycles in phase change estimate; adding said estimate with two pi with a result

added to said ambiguous phase values to provide a phase value; differencing said phase value with the wideband envelope range estimate to provide an error signal; and differencing the wideband envelope range estimate with the error signal to produce an unambiguous phase value indicative of range."

As Claims 2, 3 and 5 through 7 depend from Claim 1 and cite additional structure, they too are allowable for analogous reasons

Independent Claim13 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "...means for processing the signal samples based on returns of a target during tracking to produce a wideband envelope range estimate for components of target motion comprising precession and spin motion components; means for measuring the signal samples to produce ambiguous phase values; means for providing an integer number of cycles in phase change estimate; means for adding said estimate with two pi with a result added to said ambiguous phase values to provide a phase value; means for differencing said phase value with the wideband envelope range estimate to provide an error signal; and means for differencing the wideband envelope range estimate with the error signal to produce an unambiguous phase value indicative of range."

Independent Claim14 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "...a unit operable to provide a wideband envelope range estimate of the in-phase and quadrature samples and an ambiguous phase measurement of the in-phase and quadrature samples, to provide an integer number of cycles in phase change estimate to add with two pi with a result added to said ambiguous phase values to provide a phase value, to difference said phase value with the wideband envelope range estimate to provide an error signal, and to difference the wideband envelope range estimate with the error signal to produce a range measurement that is unambiguous in phase."

Appl. No. 10/627,436  
Reply to Office Action of April 19, 2005

Docket No. RTN-175PUS

Applicants have submitted herewith a Petition for an Extension of Time for three (3) months with authorization to charge payment to Deposit Account No. 500845 to cover the costs of the petition.

Applicants have also submitted today as a separate paper an Information Disclosure Statement for consideration.

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.


Accordingly, re-examination and reconsideration are requested in view of the above amendment and remarks.

If the Examiner has any questions regarding this Amendment or this application, he or she is respectfully invited to telephone the undersigning attorney.

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Respectfully submitted,

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